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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,253	10/23/2003	Marwan Anwar Jabri	021318-001210US	9090

20350 7590 12/20/2005

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EXAMINER

SWERDLOW, DANIEL

ART UNIT

PAPER NUMBER

2646

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,253

Applicant(s)

JABRI ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 10-12, 15, 21, 22, 27, 33 and 34 is/are rejected.
- 7) ☒ Claim(s) 2-9, 13, 14, 16-20, 23-26 and 28-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Applicant's amendments to Claims 11 and 12 have overcome the objections for minor informalities made in the prior Office action.

Claim Rejections - 35 USC § 112

2. Applicant's amendment to Claim 34 has overcome the rejection under 35 USC 112, second paragraph made in the prior Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 33 is rejected under 35 U.S.C. 102(e) as being anticipated by Tian et al. (US 6,873,701).
5. Regarding Claim 33, Tian discloses a DTMF detector for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., in a CELP domain) and determines and outputs DTMF tones based on LPC coefficients (i.e., CELP parameters) (Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 10 through 12, 15, 21, 22, 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertrand (US 5,150,410) in view of Tian.

8. Regarding Claim 1, Bertrand discloses a conferencing system (Fig. 5) that mixes multiple CELP inputs (i.e., parameters) from multiple CELP codecs (Fig. 5, reference P1-PN) into a single composite speech signal (i.e., set of CELP parameters) without decoding into the speech signal domain (Fig. 6, column 3, lines 52-57). Therefore, Bertrand anticipates all elements of Claim 34 except coupling to a DTMF signal detection module. Bertrand further discloses that such a system makes use of standard signaling and setup methods (column 4, lines 15-18). Tian discloses a DTMF (i.e., standard signaling) detector that determines and outputs DTMF tones based on LPC coefficients (i.e., CELP parameters) (Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41) and is especially suited for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., CELP). It would have been obvious to one skilled in the art at the time of the invention to apply the DTMF detector taught by Tian to the conferencing system taught by Bertrand for the purpose of implementing the standard signaling efficiently.

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9. Regarding Claims 10 through 12 and 15, Bertrand further discloses a combination and analysis process (Fig. 5; column 4, lines 3-4) that corresponds to the transcoder claimed.

10. Claim 21 is essentially similar to Claim 1 and is rejected on the same grounds.

11. Regarding Claim 22, Tian further discloses use of energy parameters (column 5, lines 50-63).

12. Regarding Claim 27, Bertrand further discloses use of two or more input codecs (Fig. 5, reference P1-PN).

13. Regarding Claim 34, Bertrand discloses a conferencing system (Fig. 5) that mixes multiple CELP inputs (i.e., parameters) from multiple CELP codecs (Fig. 5, reference P1-PN) into a single composite speech signal (i.e., set of CELP parameters) without decoding into the speech signal domain (Fig. 6; column 3, lines 52-57). Therefore, Bertrand anticipates all elements of Claim 34 except coupling to a DTMF signal detection module. Bertrand further discloses that such a system makes use of standard signaling and setup methods (column 4, lines 15-18). Tian discloses a DTMF (i.e., standard signaling) detector that is especially suited for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., CELP) (Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41). It would have been obvious to one skilled in the art at the time of the invention to apply the DTMF detector taught by Tian to the conferencing system taught by Bertrand for the purpose of implementing the standard signaling efficiently.

Allowable Subject Matter

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14. Claims 2 through 9, 13, 14, 16 through 20, 23 through 26 and 28 through 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter:

16. Claims 2 through 9, 13, 14, 16 through 20, 23 through 26 and 28 through 32 are allowable matter for reasons stated in the prior Office action.

Response to Arguments

17. Applicant's arguments filed 17 October 2005 have been fully considered but they are not persuasive.

18. In the paragraph spanning pages 9 and 10 and the first two complete paragraphs on page 10 of the response filed 17 October 2005, applicant alleges that the combination of Bertrand and Tian fails to disclose a DTMF detection module adapted to determine one or more DTMF tones based upon at least one or more input CELP parameters, as claimed in Claim 1. Examiner respectfully disagrees. As shown in the rejection above, Bertrand discloses a CELP conferencing system and Tian discloses determination of DTMF tones directly from an LPC signal. It is clear from Bertrand that CELP is a refined version of LPC. Bertrand discloses that multipulse is "just like LPC", except that the excitation is a series of pulses (column 3, lines 10-14) and that CELP is a further refinement to multipulse (column 3, lines 26-28). As such, one skilled in the art would have been able to apply the teaching of Tian to refined LPC (i.e., CELP) and determine DTMF tones from CELP parameters. If applicant disputes that one skilled in the art would have had this ability, applicant should also point to those parts of the present

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application that enable one skilled in the art to accomplish this in order to show sufficiency of applicant's written description.

19. In the paragraph spanning pages 10 and 11 of the response applicant alleges that Bertrand teaches away from combining with Tian by distinguishing between CELP and LPC. Examiner respectfully disagree. As stated immediately above, Bertrand teaches that CELP is a refinement of LPC. As such one skilled in the art would have had a reasonable expectation of success in applying the teaching of Tian.

20. On page 12 of the response, applicant's arguments apropos of Claims 1 through 32 are limited to their elements in common with Claim 1. These arguments are unpersuasive for the reasons stated above. As stated above under *Allowable Subject Matter*, examiner finds Claims 2 through 9, 13, 14, 16 through 20, 23 through 26 and 28 through 32 are allowable matter for reasons stated in the prior Office action.

21. In the fourth and fifth paragraphs on page 12 of the response applicant alleges that Bertrand fails to teach processing multiple sets of CELP parameters into a single set of CELP parameters without mixing in the speech domain and without encoding the composite signal from the speech domain into the CELP domain, as claimed in Claim 34. Examiner respectfully disagrees. As stated in the rejection above, Bertrand discloses a conferencing system that mixes multiple CELP inputs from multiple CELP codecs into a single composite set of CELP parameters without decoding into the speech signal domain. Bertrand discloses "the speech signal streams are received from the participants and decrypted in multipulse or CELP coded form. Therefore, these MP/CELP speech signals can be added together, and the resulting speech can be analyzed by the director and transmitted back to all participant's terminals. (column 3,

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lines 62-67). As such, Bertrand discloses decrypting the coded signals for combining, but this decryption has to do with security of the transmission. Even when decrypted, the signals are still CELP encoded. As such, the processing and mixing take place outside of the speech domain.

22. In the second paragraph on page 13 of the response, applicant's arguments refer back to the arguments made apropos of Claim 1 and are unpersuasive for reasons stated above.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow
Examiner
Art Unit 2646

ds

13 December 2005